UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/943,341	08/31/2001	Zhi Li Guo	JP9-2000-0257-US1	4907

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EXAMINER
NGUYEN, CHAU T

ART UNIT	PAPER NUMBER
2176	

DATE MAILED: 12/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
	09/943,341	GUO ET AL.
Office Action Summary	Examiner	Art Unit	
	Chau Nguyen	2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 August 2001*.

2a)☐ This action is **FINAL**.　　　2b)☒ This action is non-final.

3)☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☐ All　b)☐ Some *　c)☒ None of:

　　　1.☐ Certified copies of the priority documents have been received.

　　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
　　　　application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
　　Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

DETAILED ACTION

1.   Claims 1-14 are presented for examination.

Claim Objections

2.   Claims 1-14 are objected to under 37 CFR 1.75(a), as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3.   Claims 1 and 8 recite the limitation "the correlation degree", "the user information", "the position of the sentence", "the sum of scores", "the top-ranked sentences" and "the top-ranked words" on page 8 and 10. There are insufficient antecedent basis for these limitations in the claims. Claims 2-7 and 9-14 have similar issues. Appropriate correction is required.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which

said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fein et al. (Fein), US Patent Application Publication No. US 2001/0021938, Kupiec et al. (Kupiec), US Patent No. 6,766,287, and further in view of Weeks, US Patent No. 6,334,132.

6.   As to claims 1 and 8, Fein discloses an automatic method for generating summaries for text documents, comprising steps of:

generating a set of sentences by document discourse analysis and a set of words by morphologic process (pages 2-3, paragraphs [0028]-[0039]);

initializing a score for each word in the set of words and for each sentence in the set of sentences (page 3, paragraphs [0034]-[0036]);

computing the score for each word in the set of words according to the score of sentences containing it (page 3, paragraphs [0029]-[0039]);

computing the score for each sentence in the set of sentences composing it and the position of the sentence in a section and a paragraph (page 3, paragraphs [0029]-[0039]);

if the sum of scores of the words and the sum of scores of the sentences change apparently, go back to the step of computing the word score; otherwise continuing (pages 2-3, paragraphs [0028]-[0039]);

outputting the top-ranked sentences as the summary of the set of documents, the top-ranked words as the keywords list of the set of documents (Abstract).

Fein discloses generating a set of sentences from a document (pages 2-3, paragraphs [0028]. However, Fein does not explicitly disclose generating a set of sentences for a set of documents and computing the score for each sentence according to the position of the sentence in a section and a paragraph. Kupiec discloses splitting documents into sentences (Figs 1 and 5, col. 3, lines 1-17 and col. 4, line 63 – col. 5, line 14). Kupiec also discloses assigning summary score for each sentence based on the sentence position within a paragraph (col. 3, line 59 – col. 4, line 9 and Fig. 2). Since Kupiec discloses a system for summarizing documents which is similar to document summarizer of Fein, thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Kupiec and Fein to include generating a set of sentences for a set of documents and computing the score for each sentence according to the position of the sentence in a section and a paragraph. Kupiec takes advantage of the structure and wording of various document types to provide faster and more accurate summaries.

Fein and Kupiec, however, do not explicitly disclose the correlation degree between the word and the user information. Weeks discloses a system for summarizing data sets stores target data items and divides the data sets into sections (Abstract and col. 2, lines 1-36). Weeks also discloses the target data items stored by user directly or via a user profile, each section is compared

against the target data items and a ranking value is calculated fro each section

dependent on the outcome of the comparisons (Abstract). It would have been

obvious to one of ordinary skill in the art at the time the invention was made to

combine the teachings of Weeks, Fein and Kupiec to include the correlation

degree between the word and the user information. An advantage of Weeks'

invention is that it enables a summarizing tool to generate a summary of a data

set that includes target data items specified by a user for whom the summary is

generated.

7.   As to claims 2 and 9, Fein, Kupiec and Weeks (Fein-Kupiec-Weeks)

disclose wherein the step of computing the score for each word comprises:

computing the score for each word in the set of words according the

linguistic salience of the word to the user profile (Weeks discloses a system for

summarizing data sets stores target data items and divides the data sets into

sections (Abstract and col. 2, lines 1-36). Weeks also discloses the target data

items stored by user directly or via a user profile, each section is compared

against the target data items and a ranking value is calculated fro each section

dependent on the outcome of the comparisons (Abstract). It would have been

obvious to one of ordinary skill in the art at the time the invention was made to

combine the teachings of Weeks, Fein and Kupiec to include the correlation

degree between the word and the user information. An advantage of Weeks'

invention is that it enables a summarizing tool to generate a summary of a data

set that includes target data items specified by a user for whom the summary is generated).

8.   As to claims 3 and 10, Fein-Kupiec-Weeks disclose wherein the step of computing the score for each word comprises:

computing the score for each word in the set of words according to the similarity among the word, the query and topic provided by a user (Weeks discloses a system for summarizing data sets stores target data items and divides the data sets into sections (Abstract and col. 2, lines 1-36). Weeks also discloses the target data items stored by user directly or via a user profile, each section is compared against the target data items and a ranking value is calculated fro each section dependent on the outcome of the comparisons (Abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Weeks, Fein and Kupiec to include the correlation degree between the word and the user information. An advantage of Weeks' invention is that it enables a summarizing tool to generate a summary of a data set that includes target data items specified by a user for whom the summary is generated).

9.   As to claims 4 and 11, Fein-Kupiec-Weeks disclose wherein the step of computing the score for each word comprises:

computing the score for each word in the set of words according to the

similarity among the word and the terms in the titles of the documents (Fein,

pages 2-3, paragraphs [0028]-[0039]).

10.   As to claims 5 and 12, Fein-Kupiec-Weeks disclose wherein the step of

computing the score for each word comprises:

computing the score for each word in the set of words according to the

ratio of its occurrence number in the document to its occurrence number in the

set of documents (Fein, pages 2-3, paragraphs [0028]-[0039] and Kupiec, Figs 1

and 5, col. 3, lines 1-17 and col. 4, line 63 – col. 5, line 14).

11.   As to claims 6 and 13, Fein-Kupiec-Weeks disclose wherein the step of

computing the score for each word comprises:

computing the score for each word in the set of words according to the

ratio of the number of the documents including the word to the number of

documents in the set of documents (Kupiec, col. 3, line 26 – col. 4, line 24).

12.   As to claims 7 and 14, Fein-Kupiec-Weeks disclose wherein the step of

computing the score for each word comprises:

computing the score for each word in the set of words according to the

weighted-average of at least two of:

the linguistic salience of the word to the user profile; the similarity among

the word, the query and topic provided by a user (Weeks discloses a system for

summarizing data sets stores target data items and divides the data sets into sections (Abstract and col. 2, lines 1-36). Weeks also discloses the target data items stored by user directly or via a user profile, each section is compared against the target data items and a ranking value is calculated fro each section dependent on the outcome of the comparisons (Abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Weeks, Fein and Kupiec to include the correlation degree between the word and the user information. An advantage of Weeks' invention is that it enables a summarizing tool to generate a summary of a data set that includes target data items specified by a user for whom the summary is generated);

the similarity among the word and the terms in the titles of the documents (Fein, pages 2-3, paragraphs [0028]-[0039]);

the ratio of its occurrence number in the document to its occurrence number in the set of document (Fein, pages 2-3, paragraphs [0028]-[0039] and Kupiec, Figs 1 and 5, col. 3, lines 1-17 and col. 4, line 63 – col. 5, line 14); and

the ratio of the number of the documents comprising the word to the number of documents in the set of documents (Kupiec, col. 3, line 26 – col. 4, line 24).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chau Nguyen whose telephone number is (571) 272-4092. The Examiner can normally be reached on Monday-Friday from 8:00 am to 5:00 pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Joseph Feild, can be reached at (571) 272-4090.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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